ML7344, ML7406EVA
Start Guide

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NOTES

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Introduction

Thank you very much for purchasing products of our company. Before using this product, please use correctly after reading this “start guide”. Moreover, please keep it carefully even after reading this. This start guide indicates enclosure attachment ant the connection method.

The manual shown in the following other than this document is prepared. Please check if needed.

- Datasheet
- Design Guide
- Simple MAC User’s Manual

1. Attention on the handling of this product

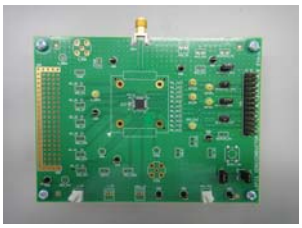
- This product is evaluation kit. It is available for evaluation only.
- Any responsibility cannot be taken about building this product into other products.
- Please use the application software of this product with the PC with which Japanese version Windows XP is installed.
- It will become infringement of copyright, if all or apart of software of this product is reproduced without permission of copyright or duplicate things are distributed.
- Any responsibility cannot be taken about reconstruction and illegal use of this product.
- If the example of a harmful electric wave interference should occur from this product, please change operating frequency promptly, or suspend the output of an electric wave, and perform disposal for interference evasion etc.

2. Setup Flow

Please check when open the box and all the following articles are assembled first. If it should run short or should have damaged, please inform a purchasing agency.

- CD-ROM is packed only when first time purchase.
- By shipment time, mounting parts etc may differ from a photograph in part.
- Please prepare a stabilized power supply, a RS-232C cable (straight), and serial communication software (TeraTerm).

- ML7344/ML7406 Evaluation Board… 1



- ML7344, ML7406 Control Board… 1

- Power Supply Cable… 1
- CD-ROM… 1 (First time purchase only)

2.1. Control Board Setting

This section describes the control board setting.

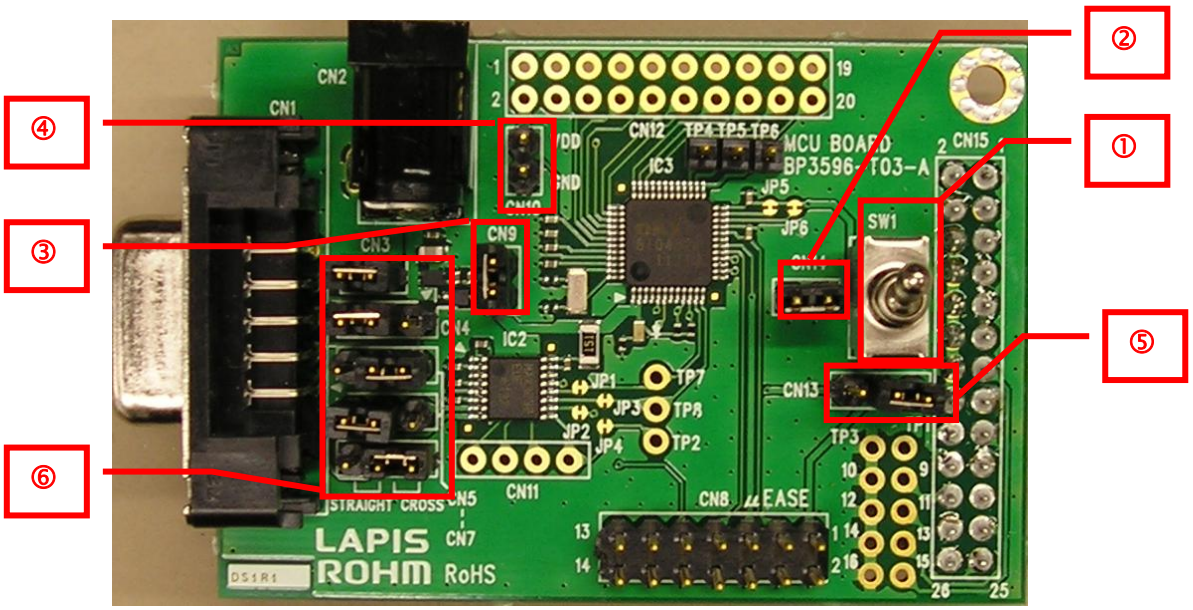


Figure 1: Control Board Overview

Table 1: Detailed Description of Control Board

Number	Symbol	Function
①	SW1	In case of CN14 short, SW1 switch is set to CN13 side (lower side in Fig.16) : set CPU reset SW1 switch is set to “SW1” silk (upper side in Fig.16) : release CPU reset
②	CN14	Connect RESET pin of ML610Q482 and SW1
③	CN9	Short CN9 in case of the external 5.0V power supply.
④	CN10	If 3.0V voltage supplied by the external power supply. Please usually use open.
⑤	CN13	Change voltage supplied line on control board. 1-2 short (right side in Fig.16) : connect voltage supplied line to evaluation board. Please usually use it in this setting. 2-3 short (left side in Fig.16) : connect voltage supplied line to CN8 (μ EASE) Open : voltage supplied by CN2 or CN8
⑥	CN3 – CN7	RS232-C interfaces are set.

2.2. ML7344, ML7406 Evaluation Board Setting Procedure

The ML7344 evaluation board is connected with the control board as shown below.

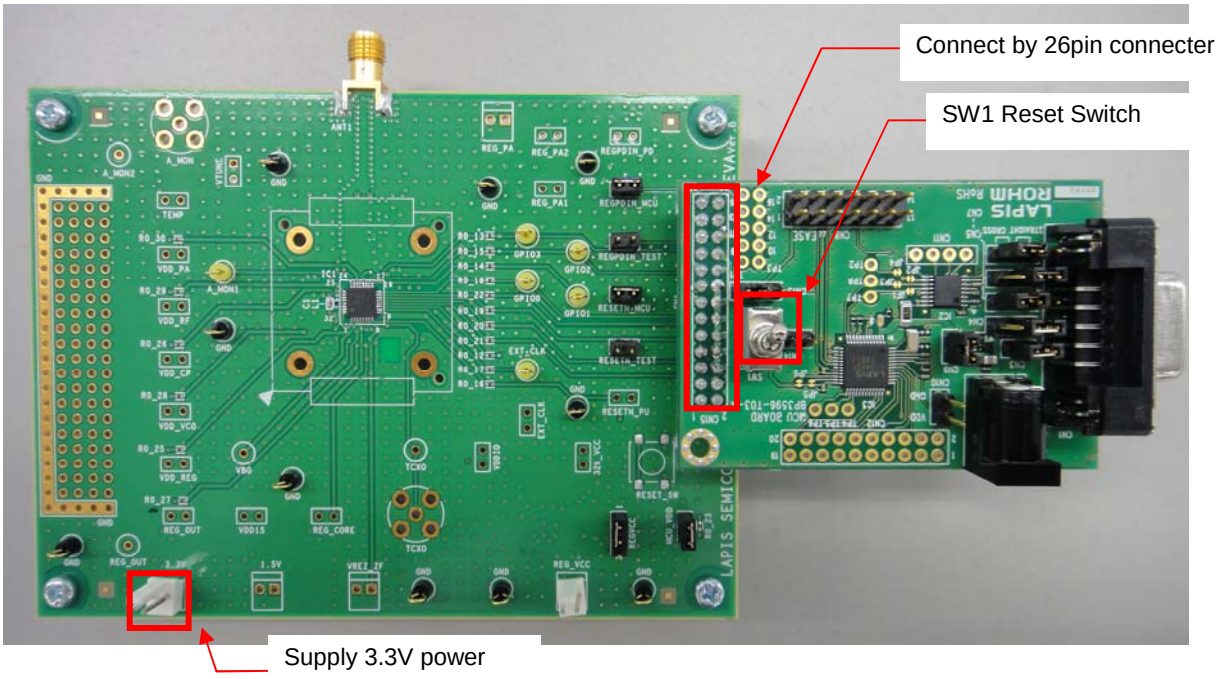


Figure 2: ML7344 Evaluation Board Connection Overview

The ML7406 evaluation board is connected with the control board as shown below.

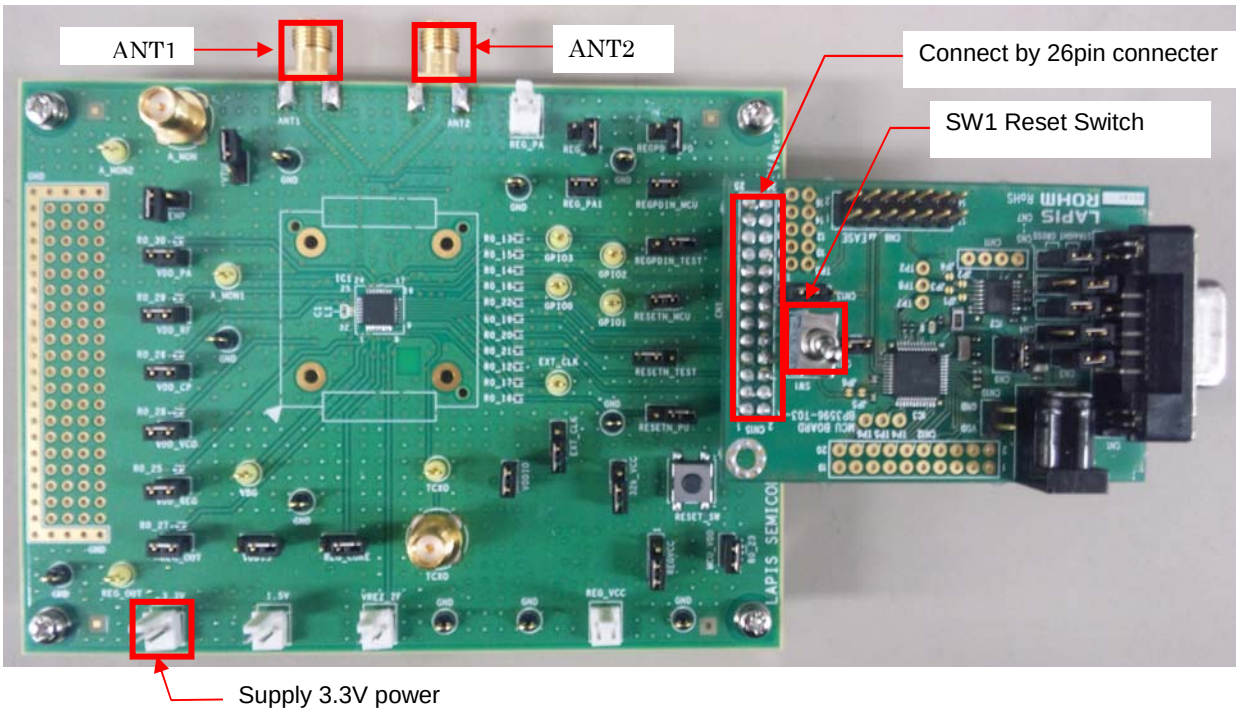


Figure 3: ML7406 Evaluation Board Connection Overview

* When you do not use DIVERSITY, please use ANT1.

ML7344 and ML7406 evaluation board jumper function and recommended setting are as following.

Table 2: Evaluation board jumper setting table

JP No.	Silk	Jumper Setting	Remarks
JP1	RESETN_MCU	short	For micro controller
JP2	REGPDIN_MCU	short	For micro controller
JP3	REGVCC	1-2short	TCXO internal power supply (3.3V)
		2-3short	TCXO external power supply (REG_VCC)
JP4	32k_VCC	open	
JP5	EXT_CLK	open	
JP101	RESETN_TEST	open	For test in Lapis
JP102	REGPDIN_TEST	open	For test in Lapis
JP103	REGPDIN_PD	open	
JP104	RESETN_PU	open	
JP105	MCU_VDD	short	Micro controller internal power supply (3.3V)
		open	Micro controller external power supply (AC connecter on micro controller board)
JP106	VDDIO	short	ML7344's board uses 0 Ohm.
JP107	VDD_REG	short	ML7344's board uses 0 Ohm.
JP108	REG_CORE	open	
JP109	VDD15	open	
JP110	VDD_CP	short	ML7344's board uses 0 Ohm.
JP111	REG_OUT	short	ML7344's board uses 0 Ohm.
JP112	VDD_VCO	short	ML7344's board uses 0 Ohm.
JP113	VDD_RF	short	ML7344's board uses 0 Ohm.
JP114	VDD_PA	short	ML7344's board uses 0 Ohm.
JP115	REG_PA1	short	ML7344's board uses 0 Ohm.
JP116	REG_PA2	open	
JP117	TEMP	open	
JP118	VTUNE	short(ML7344)	
		open(ML7406)	

2.3. Terminal Setting

2.3.1. Tera Term Setting

The Tera Term serial port settings are shown below.
The red frame indicates required settings. Use Tera Term version 4.63 or higher.

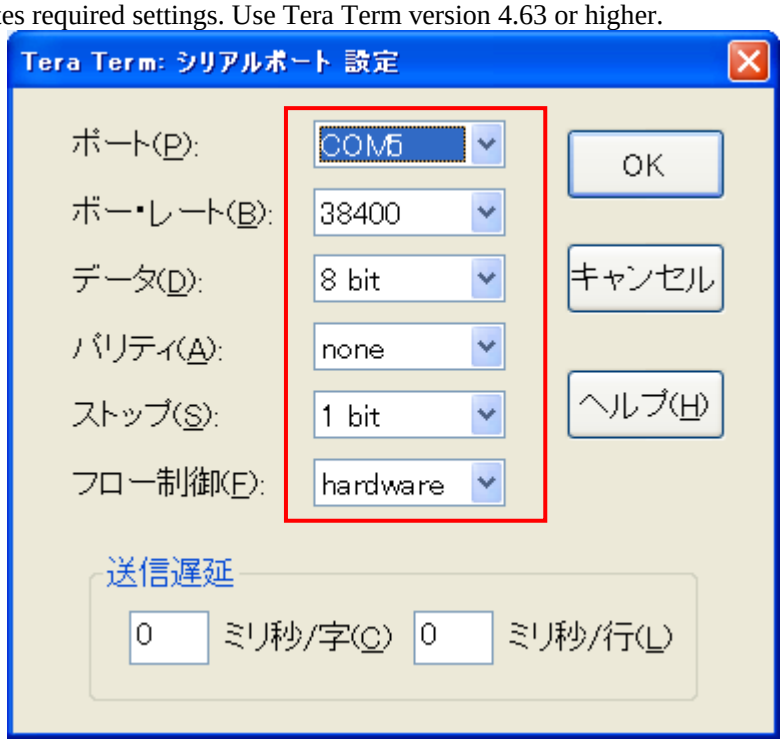


Figure 4: Tera Term Serial Port Setting Screen

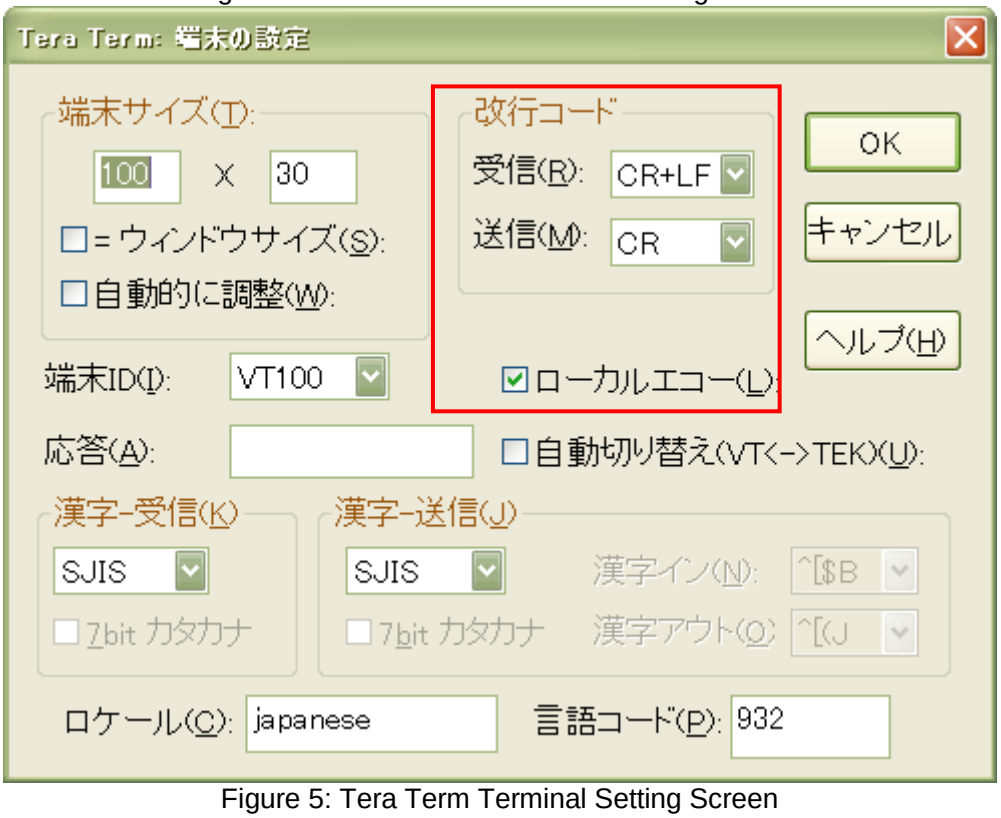


Figure 5: Tera Term Terminal Setting Screen

2.3.2. Wireless Control Tool Setting

Wireless Control Tool (WCT) is able to control ML7344, ML7406 Simple MAC. WCT serial port setting is below. You must set category in red box.

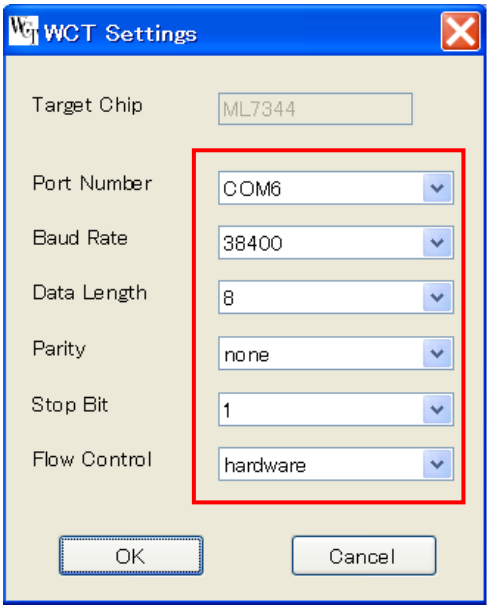


Figure 6: WCT serial port setting

If you push OK button on WCT serial port setting window, WCT main window is popd up. You can set verification command in Init tab, Contro tab, RFTest tab, RegBANK0 tab, RegBANK1 tab, RegBANK2 tab or RegBANK3 tab. Please refer to “ML7344, ML7406 Wireless Control Tool User’s manual”.

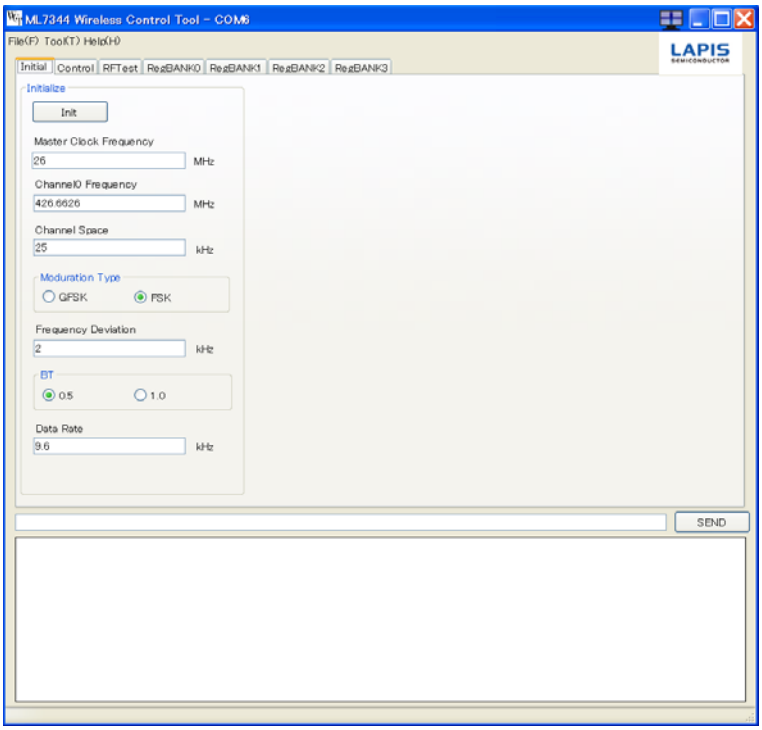


Figure 7: WCT main window

3. Connection verification procedure

① Supply 3.3V power supply.
② Reset the control board.
③ Start the terminal software (Tera Term).
④ Set the terminal software. (For terminal settings, refer to "2.3 Terminal Setting".)
* No prompt will be displayed by power-on, terminal software setting, or reset.
⑤ Verify the connection by a register read command. The connection is correct if confirm of “88” is displayed in response to the read command “RREG 0B”.

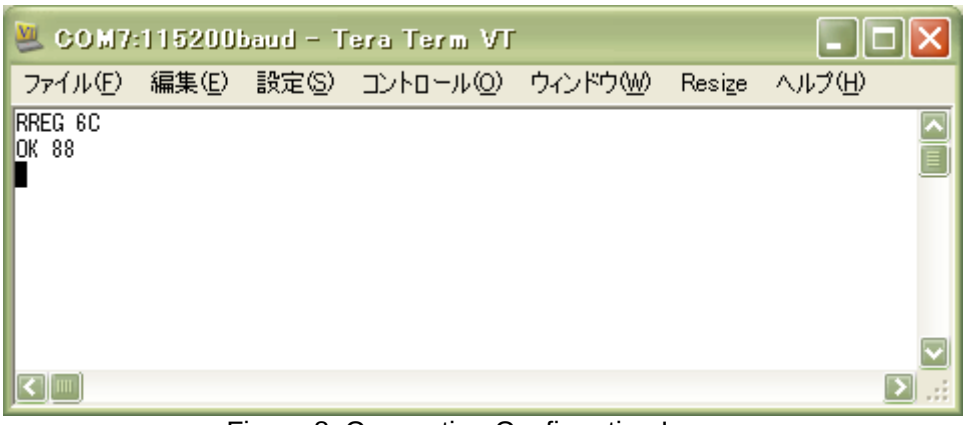


Figure 8: Connection Confirmation Image

Revision History

Document No.	Issue Date	Page		Description
		Previous Edition	New Edition	
FEXL7344_7406EVA_startguide-01	2013.7.25	–	–	First edition issued
FEXL7344_7406EVA_startguide-02	2014.5.8	5	2	Added Control board setting
			4	Added Table of jumper setting
			5	Added WCT setting